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Date: 18 April 2001 By: Vlad. Skliba
Vladimir Skliba

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Hui WANG

Serial No.: Unassigned Examiner: Unassigned

Filed: Herewith Art Unit: Unassigned

For: **PLATING APPARATUS AND METHOD**

Assistant Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Prior to examination of the above-identified application, the Examiner is respectfully requested to enter the following amendments.

IN THE SPECIFICATION

Page 1, line 5, please add the following paragraph:

This application is a divisional of U.S. Patent Application Serial No. 09/232,864, filed January 15, 1999, which claims the benefit of U.S. Provisional Application Serial No. 60/094,215, filed July 27, 1998, and U.S. Provisional Application Serial No. 60/074,466, filed February 12, 1998. These cited applications are hereby incorporated, in their entirety, by reference.

IN THE CLAIMS

Please cancel claims 1-109 and add the following new claims:

110. (new) A method for plating a film to a desired thickness on a surface of a substrate, comprising:

providing a plurality of stacked plating modules and a substrate transferring mechanism;

picking up a substrate from a substrate holder with the substrate transferring mechanism;

loading the substrate into a first one of the stacked plating modules with the substrate transferring mechanism;

plating a film on the substrate in the first one of the stacked plating modules; and

returning the substrate to said substrate holder with the substrate transferring mechanism.

111. (new) The method of claim 110, further comprising:

after plating the film on the substrate, drying the substrate by at least one of spinning the substrate or directing drying gas onto the substrate.

112. (new) The method of claim 110, wherein at least a second one of the plurality of plating modules is a cleaning module, the method further comprising:

after plating the film on the substrate, picking up the substrate with the substrate transferring mechanism from the first one of the stacked plating modules;

placing the substrate into the second one of the stacked plating modules for cleaning;

cleaning the substrate in the second one of the stacked plating modules; and

drying the substrate in the second one of the stacked plating modules.

113. (new) An automated tool for plating a film on a substrate, comprising:

at least two plating baths positioned in a stacked relationship;

at least one substrate holder;
a substrate transferring mechanism;
a frame supporting said plating baths, said substrate holder and said substrate transferring mechanism; and
a control system in communication with said substrate transferring mechanism, substrate holder and said plating baths configured to continuously perform uniform film deposition on the substrate.

114. (new) The automated tool of claim 113, further comprising:
at least two cleaning modules positioned in a stacked relationship with said at least two plating baths.

115. (new) The automated tool of claim 113, wherein the substrate transferring mechanism includes a telescoping member movable with three degrees of freedom.

116. (new) The automated tool of claim 113, wherein said substrate transferring mechanism is mounted on a bottom portion of said frame.

117. (new) The automated tool of claim 113, wherein said substrate transferring mechanism is mounted on a top portion of said frame.

118. (new) The automated tool of claim 113, further comprising at least a second set of plating baths positioned in a stacked relationship and at least two additional cleaning modules positioned in a stacked relationship with said second set of plating baths.

REMARKS

The present application is a divisional of U.S. Patent Application Serial No. 09/232,864, filed January 15, 1999, which claims the benefit of U.S. Provisional Application Serial No. 60/094,215, filed July 27, 1998, and U.S. Provisional Application Serial No. 60/074,466, filed February 12, 1998.

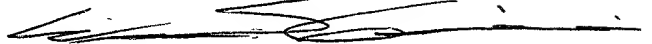
The specification has been amended to include a specific reference to the above-identified applications for which a claim of priority is made.

Claims 1-109 have been cancelled, and new claims 110-118 have been added. New claims 110-118 correspond to non-elected Group III claims of the parent application, U.S. Patent Application Serial No. 09/232,864.

These amendments do not add any new matter, and the Examiner is respectfully requested to enter them. Further consideration of the present application is respectfully requested.

If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (650) 843-5622.

Respectfully submitted,
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